

Attorney Docket No. N81814/CJW
Customer No. 01333

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of
Inventor:
Dirk Dobrindt

Group Art Unit: 3653
Examiner:
Michael C. McCullough

APPARATUS FOR
DEPOSITING A SHEET ON A
STACK

Serial No.: 10/584,157
Filed: April 19, 2007

Commissioner for Patents
Alexandria, VA 22313-1450

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Cheryl B Fox
NAME:

DATE: *November 11, 2010*

Sir:

DECLARATION UNDER 37 C.F.R. § 1.132

I, Dr. Detlef Schulze-Hagenest, make the following declaration:

1. I assisted the inventors in the preparation of the above-identified application.
2. I hold a diploma in Physics from Hamburg University. In 1980 I received my Ph.D. in Physics from Kaiserslautern University in Kaiserslautern, Rheinland-Pfalz, Germany.
3. Since 1999 I have worked for Kodak Graphic Communications GmbH (a subsidiary of Eastman Kodak Company, the assignee of the present application) and Nexpress GmbH (since acquired by Eastman Kodak Company or its subsidiaries) in the field of electrophotographic printing. I have filed over 50 U.S. patent applications for Eastman Kodak Company. To date, over 25 of my Eastman Kodak applications have issued as U.S. patents. I consider myself an expert in mechanical design and printing technology for hardcopy output devices such as electrophotographic printers.

I have reviewed and understand the application as filed. I have reviewed and understand the Office Action mailed August 31, 2010, and the

references cited therein which give rise to 35 USC 102 and 103 rejections. My remarks are given here with respect to independent apparatus claim 1.

4. The attached Exhibit A includes various photographs and diagrams more clearly showing accommodation segments as set forth in claim 1. Part numbers less than 100 correspond to FIG. 5 of the present application; part numbers greater than 100 are new in Exhibit A, although the features labeled are clearly described in the specification and drawings of the application as filed.

Page 1 of Exhibit A shows another view of accommodation segments. This view is taken from FIG. 4 of USSN 10/590,280, which has an inventor in common with the present application. The priority date of the '280 application is February 23, 2004, approximately three months after the December 22, 2003 priority date of the present application. These two applications describe different but related embodiments of stacking devices. Notwithstanding the differences, FIG. 4 '280, as shown on pg. 1 of Exhibit A, is useful for showing the independently coaxially rotating stacking members of claim 1 of the present application.

Each accommodation segment 13, 14, 17 is centered about its axis of rotation and has two drag elements, one on each end. As shown, each accommodation segment rotates counterclockwise to stack sheets.

Specifically, the outer stacking member 114, highlighted blue, is connected to accommodation segments 13 (on the top-right) and 17 (bottom-left). The inner stacking member 113, highlighted yellow, is connected to accommodation segment 14 (top-left) and 118 (bottom-right). This figure clearly shows that the accommodation segments (blue and yellow) are mounted on independent stacking members on joint axis 109. That is, the blue and yellow stacking members are not connected to each other. Therefore, the accommodation segments are able to rotate independently of each other, in pairs in this example, around joint axis 109, on the independently coaxially rotating stacking members 113, 114 set forth in claim 1. These features are also shown in FIGS. 2-4 of the application as filed.

The four accommodation segments 13, 14, 17, 118 on stacking members 113, 114 are stacked together, so four drag elements are present on each stacking device. This permits sheets to be stacked at a higher frequency than once per 180° rotation of drive shaft 109. While one accommodation segment (e.g., 13) is stacking one sheet, the other (e.g., 14) is immediately ready to receive another sheet,

even before the first sheet is stacked. This advantageously improves the speed of the stacking device.

5. One embodiment of claim 1 operates as follows: referring to Exhibit A, pg. 1, accommodation segment 14 picks the first sheet, which is entering from the right side of the figure. The yellow stacking member 113, holding accommodation segments 14, 118 then accelerates around joint axis 109 to drop the first sheet. At the same time, accommodation segment 13 picks the second sheet. The blue stacking member 114, holding accommodation segments 13 and 17, then accelerates around joint axis 109 to drop the second sheet. By this time, accommodation segment 118 has been brought up to the top by the rotation of yellow stacking member 113, so accommodation segment 118 picks the third sheet. Yellow stacking member 113 then accelerates again to drop off the third sheet. At the same time, accommodation segment 17 has been brought up to the top by the rotation of blue stacking member 114, so it picks the fourth sheet. This continues for all sheets.

6. Referring to Exhibit A, pg. 2, there are shown four frames from a movie taken of a model showing the accommodation segments and stacking members of claim 1. Again, this model is of different but related apparatus. Frame 1 shows accommodation segments 13 and 14, and drag element 214 (configured differently than in the present application). Frames 2 and 3 show how accommodation segments 13 and 17, on stacking member 114, move independently of accommodation segment 14. In frame 4, drag element 217 on accommodation segment 17 is just visible.

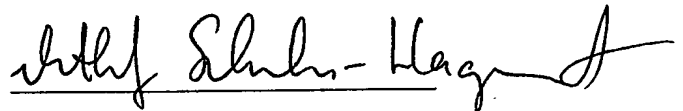
7. Referring to Exhibit A, pg. 3, there are shown three frames from the same movie showing accommodation segments 14 and 118 moving together on stacking member 113.

8. In contrast, referring to Holtje FIGS. 2 and 3, the disks 52 of Holtje can only stack sheets with finger units 56a, 56b, which are mounted at fixed angular positions 180° opposed on drive shaft 54 (col. 7 lines 42-45). Moreover, as clearly shown in Holtje FIG. 3, discs 52 are both driven by shaft 54, which is itself driven by the unlabelled motor and gear train shown at the right of FIG. 3 (see also Holtje col. 3 lines 53-55). Since discs 52 rotate together on shaft 54, they are not the independently coaxially rotating stacking members holding the accommodation segments of claim 1. Finger units 56a, 56b are therefore not two accommodation

segments, as set forth in claim 1, and does not provide the advantages described above for accommodation segments. In fact, nothing in Holtje or Michler describes or suggests using multiple independently coaxially rotating members.

9. In my opinion, with reasonable technical certainty, the above data show that apparatus according to claim 1 are novel over Holtje and Michler, since neither has accommodation segments. Moreover, the segments provide unexpectedly higher stacking speed than Holtje and Michler taken in combination. One of ordinary skill in the art at the time of filing this application would not have had a reasonable expectation of success in producing the invention set forth in amended claim 1 based on Holtje and Michler, taken singly or in combination, without undue experimentation.

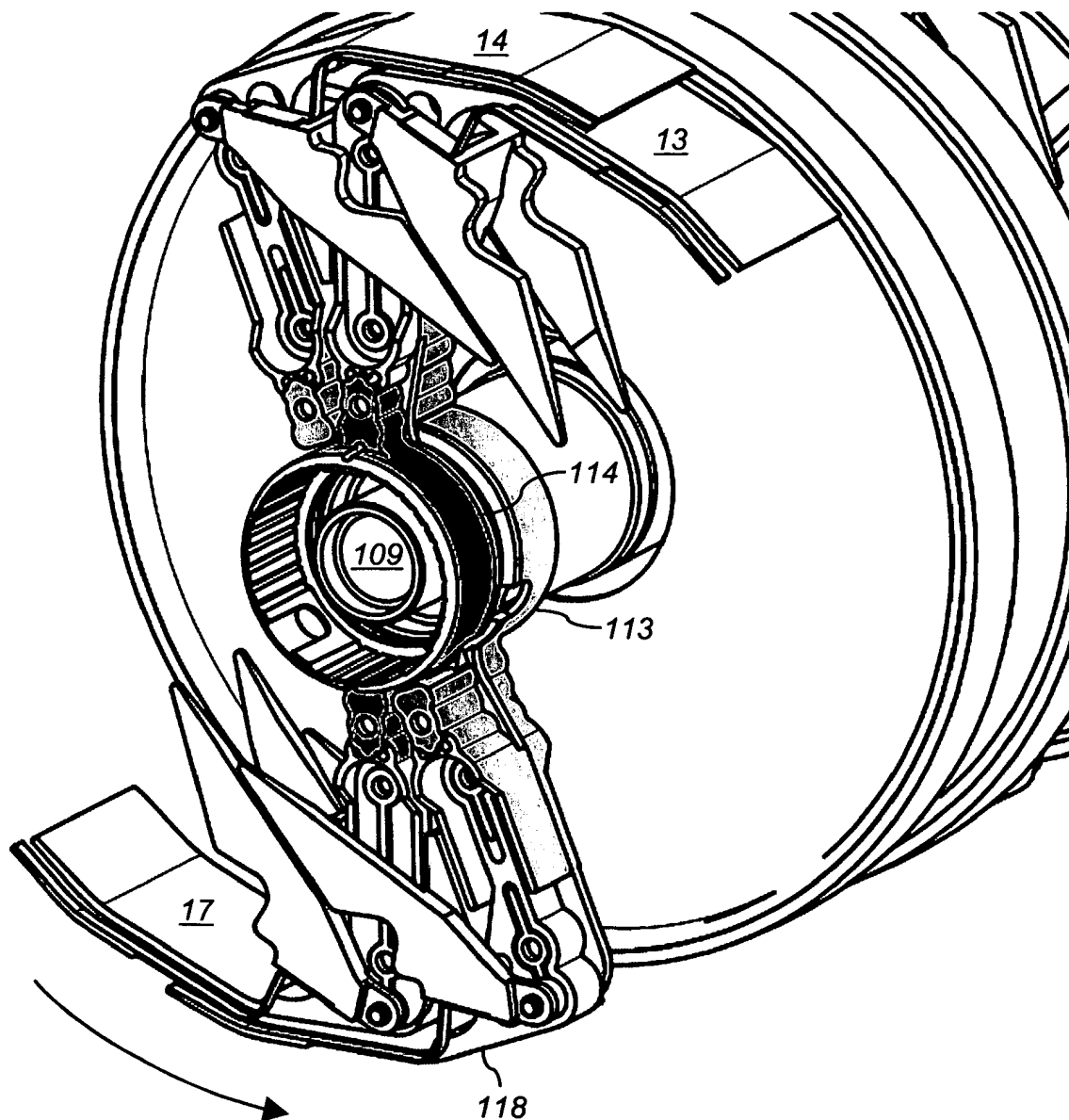
10. The undersigned declares further that all statements made herein of his own knowledge are true and all statements made on information and belief are believed to be true. These statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing therein.

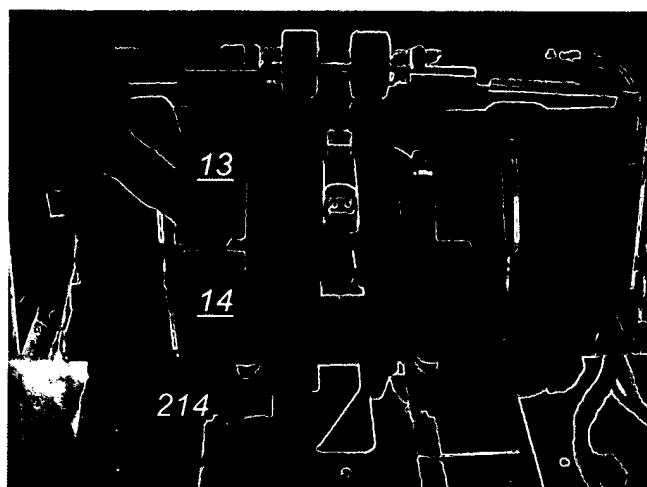


Dr. Detlef Schulze-Hagenest

Date: Nov. 10th, 2010

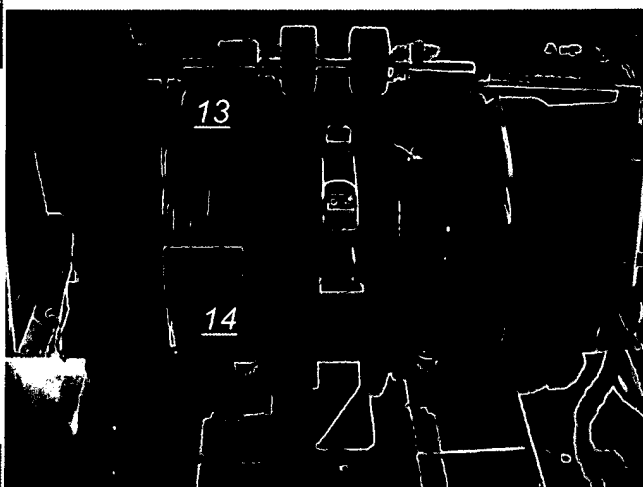
Exhibit A
to Declaration of Detlef Schulze-Hagenest



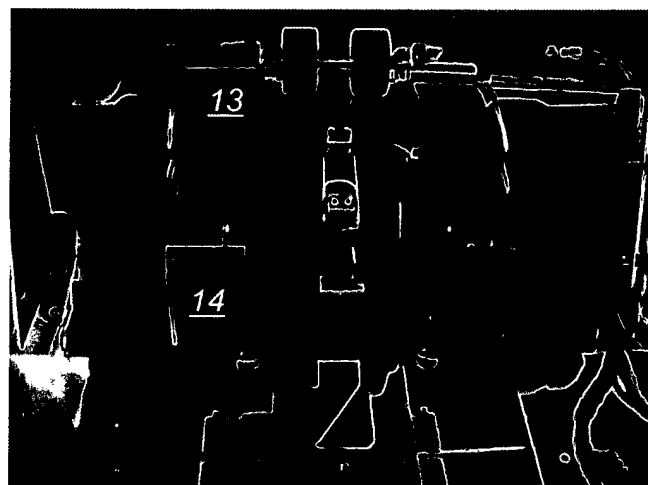


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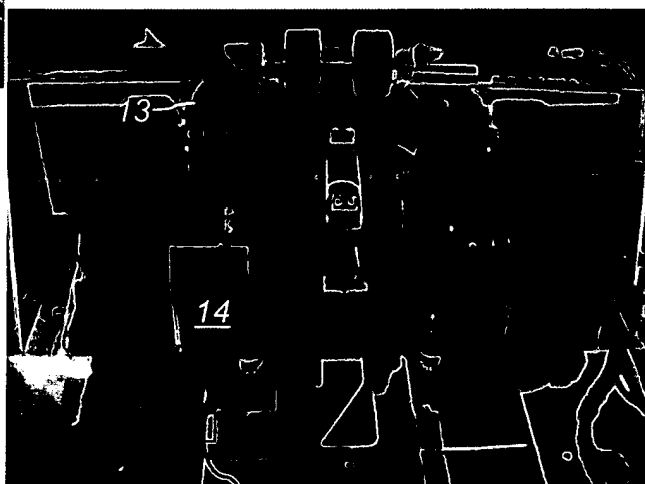
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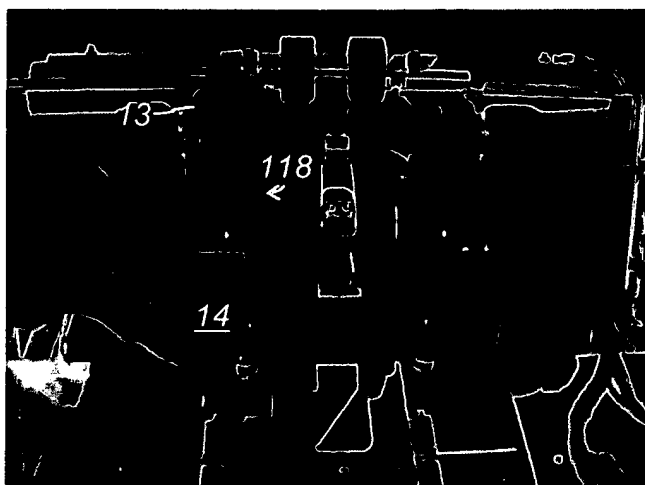


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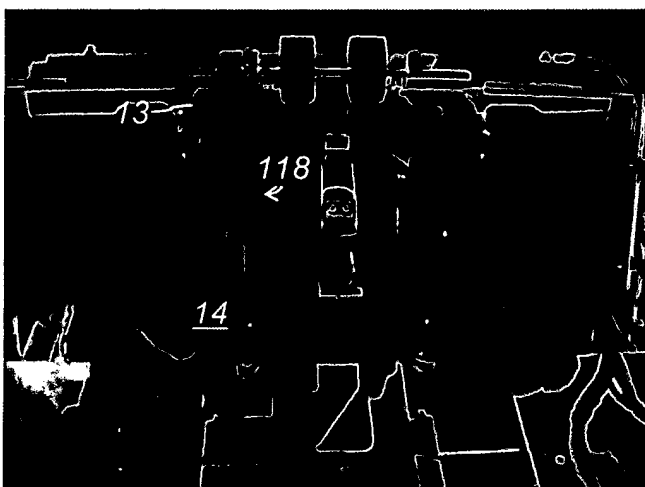


217

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